

Remarks

The Examiner's Office action mailed May 7, 2004, which rejected pending claims 1-42, has been reviewed. In view of the following remarks, Applicants respectfully submit that the application is in condition for allowance.

The Examiner rejected claims 1-5, 7, 9, 10, 18, and 32 as being anticipated under 35 U.S.C. § 102(e) by U.S. Patent No. 6,477,154 B1, issued to Cheong et al. ("Cheong").

The Examiner rejected claim 6 under 35 U.S.C. § 103(a) as being unpatentable over Cheong in view of U.S. Patent No. 6,104,513, issued to Bloom ("Bloom").

The Examiner rejected claims 8, 11, 12, 19, 20, 22-24, 26, and 27 under 35 U.S.C. § 103(a) as being unpatentable over Cheong.

The Examiner rejected claim 13 under 35 U.S.C. § 103(a) as being unpatentable over Cheong in view of U.S. Patent No. 6,223,055 B1, issued to Cyr ("Cyr").

The Examiner rejected claims 14-17, 21, 25, 28-31, and 33-42 under 35 U.S.C. § 103(a) as being unpatentable over Cheong in view of U.S. Patent No. 5,682,256, issued to Motley et al. ("Motley").

Thus, all rejections were made based upon Cheong. The Examiner cited Cheong at column 4, lines 1-25 and column 6, lines 15-25 as disclosing all of the limitations of claims 1, 9, and 32. Those cited sections are reproduced immediately below. All other rejections were based upon this initial rejection and citation.

In the present invention the micro Base Station (mBS) 102 comprises a radio frequency (RF) front end, an HFR network interface module and so on which were comprised in the conventional Base Station Transceiver System (BTS). The micro Base Station Controller (mBSC) 101 comprises a part corresponding to a digital module, a control part and so on so that the present invention can perform a centralized control management and a dynamic channel allocation. The mBSC 101 and the mBS 102 are connected through the HFR network 103. A forward link refers to a direction from the mBSC 101 to the mBS 102 and a reverse link does a direction from the mBS 102 to the mBSC 101. A signal to be transmitted through the HFR network 103 is the signal using a Subcarrier Multiplexing (SCM) scheme and a Wavelength Division Multiplexing (WDM) scheme. The mBSC 101 is connected with the conventional base station controller through a digital connection of E1/T1, HDSL and so on and a signal connection of an interprocessor communication. In the case that a high-level communication network becomes developed into other network, for example, the Asynchronous Transfer Mode (ATM) network 106, the present invention's mBSC 101 can be connected with the ATM network 106 by only changing the high-level

communication network interface module of the mBSC 101. Cheong at column 4, lines 1-25.

....

Here, where the demand of each service is great, a wavelength Division Multiplexing (WDM) scheme may be applicable to a service since a broad band spectrum is possible. The electrical-to-optical converters 219 and 224 have different wavelengths λ_2 and λ_3 from the electrical-to-optical converter 213 and the wavelengths λ_2 and λ_3 may be transmitted to each mBS through the optical wavelength coupler of the path 220. The wavelengths λ_2 and λ_3 are selected in the mBSs 221 and 225, respectively as appropriate to the demand according to optical wavelength and then transmitted by the desired radio frequency band. Cheong at column 6, lines 15-25.

Claim 1 requires transmitting a data signal over a first wavelength on a single fiber strand; and transmitting a radio frequency signal over a second wavelength on the same single fiber strand.

Cheong does not disclose or teach transmitting a data signal over a first wavelength and transmitting a radio frequency signal over a second wavelength where the first and second wavelengths are on the same single fiber strand. The required limitations are not disclosed or taught in the sections cited by the Examiner or anywhere in Cheong.

Cheong states that different wavelengths are used (λ_2 and λ_3) but does not state what is transmitted over the wavelengths, how things are transmitted (other than stating electrical-to-optical converters have different wavelengths), or that the wavelengths are on a single strand. The "path 220" identified in Figure 2 is a logical direction a signal may flow between an electrical-to-optical converter 219 and 224 and an optical splitter or optical node 214. It is NOT a single fiber strand as required in Applicants' claims. See column 6, line 23. The "path 220" does not meet the required limitation of a single fiber strand.

Cheong also does not disclose or teach transmitting the data signal over a first wavelength and transmitting the radio frequency signal over a second wavelength. Merely identifying the existence of an ATM network and an LMDS transceiver in Figure 1 and a single reference to an LMDS service (in the entire patent) at column 7, line 61 does not meet this limitation. A reference purely to the existence of PCS in Figure 1 also does not meet this limitation. Again, Cheong states that different wavelengths are used (λ_2 and λ_3) but does not state what is transmitted over the wavelengths, how things are transmitted (other than stating

electrical-to-optical converters have different wavelengths), or that the wavelengths are on the same single fiber strand.

Since none of the other references cited by the Examiner contain the missing limitations, and the Examiner has not alleged that they do, the claims are believed patentable over all cited references, alone or in combination. Applicants do not believe a discussion of the other references is required since they do not contain the cited limitations, and the Examiner has not alleged that any other reference contains the cited limitations.

Cheong does not disclose, teach, or suggest the system of Applicants' claim 1. Therefore, Applicants submit that claim 1 is allowable. Withdrawal of the rejection respectfully is requested.

The above arguments apply to the rejections of claims 18, 19, 32, and 33. No other sections of Cheong were identified to meet the required limitations.

Applicants' have demonstrated that claims 1, 18, 19, 32, and 33 are patentable over the cited references. Applicants respectfully request withdrawal of the rejections of claims 1, 18, 19, 32, and 33.

Additionally, regarding the 103 rejection of claim 19, the Examiner did not provide a reason to modify Cheong to meet any claimed limitation other than using Applicant's own comments as a baseline. The Examiner did not use any reasoned statement of proof or any objective evidence from Cheong or any other reference under the 103 rejection to meet the claimed limitation. The Examiner cannot reject Applicants' claim without such a reasoned statement of proof or objective evidence. The Examiner has not made a prima facie case of obviousness.

Similarly, regarding the 103 rejection of claim 33, the Examiner did not provide a reasoned statement of proof or objective evidence for a reason or motivation to combine Cheong with Motley. The Examiner has not made a prima facie case of obviousness.

The Examiner must show proof that the claimed limitation is taught in the cited reference. The Examiner must provide detailed explanations of how the prior art renders a claim obvious or anticipated, including "reasoned findings" identifying structures and reasons for identifying and/or combining structures. *In re Lee*, 61 USPQ2d 1430 (Fed. Cir. 2002). The Examiner must provide objective evidence and proper authority for the rejection. *In re Lee* at 1435.

The Examiner may not base a rejection on conclusory statements. There must be a search and analysis of the prior art, including evidence relevant to the finding of whether there is a teaching, motivation, or suggestion to select and/or combine the references relied on as evidence of anticipation or obviousness. *In re Lee* at 1433. The Examiner can satisfy the burden "only be showing some objective teaching in the prior art." *In re Lee* at 1434. Conclusory statements from the Examiner cannot be used in place of an actual teaching in the cited reference. *In re Lee* at 1434. This factual inquiry is material to patentability, and can not be resolved on subjective belief and unknown authority. *In re Lee* at 1434.

For these additional reasons, the claims are believed patentable over all cited references, alone or in combination. Therefore, Applicants respectfully request withdrawal of the rejections of claims 19 and 33 for these additional reasons.

Because the claims depending directly or indirectly from claims 1, 18, 19, 32, and 33 include all of the limitations of their respective base claims, which are believed to be patentable, these claims also are believed to be allowable. Withdrawal of the rejections of those claims depending from claims 1, 18, 19, 32, and 33 respectfully is requested.

Because claims 1, 18, 19, 32, and 33 are believed patentable, it is not necessary to discuss patentable limitations of claims depending there from or the references or rejections. However, the lack of a discussion of patentable limitations of those dependent claims should not be construed to mean that there are not patentable limitations in those dependent claims.

Cheong does not teach, disclose, or suggest the limitations of Applicants' claims. Moreover, there is no motivation, teaching, or suggestion to combine Cheong with any of the systems of Bloom, Cyr, and/or Motley. Neither Cheong alone nor in combination with Bloom, Cyr, and/or Motley teaches the systems and methods of Applicants claims. For these additional reasons, withdrawal of the rejection of the claims respectfully is requested.

If the Examiner does not agree with Applicants, Applicants respectfully request the specific location where the above limitations are taught. The specific language of the citation is requested so that Applicants may more readily understand the Examiner's position.

If the Examiner continues to believe that any portion or portions of the claims can be rejected over Cheong, alone or in combination with another reference, Applicants specifically request that the Examiner respond to all arguments made in the Remarks section of this Response above, including a response for each claim with a detailed identification of which

specific section of Cheong is used to reject the claim limitation and a detailed explanation of how that section anticipates the claim limitation. Applicants also request a specific and detailed explanation of each reason or motivation to combine Cheong and another reference or reason to modify Cheong to obtain the claimed limitation, including a reasoned statement as required by Lee and an identification of the reason to combine as found in Cheong or the other reference. Such a detailed explanation is needed by Applicants so that Applicants can adequately respond to a continued rejection. Applicants thank the Examiner in advance for cooperation in this respect.

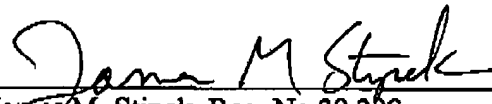
The references cited by the Examiner and made of record have been reviewed by Applicants. Applicants have no further remarks with regard to the cited references.

Based on the foregoing, it is submitted that the Applicants' invention as defined by the claims is patentable over the references of record. Issuance of a Notice of Allowance is solicited.

Applicants' attorney welcomes the opportunity to discuss the case with the Examiner in the event that there are any questions or comments regarding the response or the application.

This is intended to be a complete response to the Examiner's Office action mailed on May 7, 2004.

Respectfully Submitted,
LATHROP & GAGE L.C.

By 
James M. Stipek, Reg. No 39,388
Lathrop & Gage, L.C.
2345 Grand Boulevard, Suite 2300
Kansas City, MO 64108
Tel: (816) 460-5848
Fax: (816) 292-2001
Attorney for Applicant(s)